

ENDANGERED AND THREATENED SPECIES
OF ILLINOIS: STATUS AND DISTRIBUTION

VOLUME 2: ANIMALS

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HOW TO USE THIS BOOK

The purpose of this volume is to provide general information on animal species which are listed as endangered or threatened in Illinois and where they occur in the state. It is not intended to serve as a field guide for species identification, and for that reason no attempt has been made to illustrate each species. It should not be used for precise locational information on where a particular species occurs, as this information is constantly being revised as data are collected, and may be out-of-date for some species at the time of publication. Anyone desiring precise information on endangered or threatened species occurrences in Illinois should contact the Illinois Department of Conservation's Natural Heritage Database in Springfield.

KEY

The narrative for each species is accompanied by a map of Illinois with county outlines shown. Counties with recent (>1980) records of occurrence are shown with double cross-hatching; counties with historic (<1980) records of occurrence are shown as single cross-hatched. An example of a species treatment is shown at the bottom of this page.

ORGANIZATION OF TEXT

Species have been arranged in the text alphabetically by scientific name within taxonomic classes. The latin name by which the species is officially listed under the Illinois Endangered Species Protection Act is the primary name used in this volume. Species classified as endangered or threatened are intermixed, rather than broken into two

groupings; the status of each species is noted in the narrative for that species. Because not all readers will know the scientific name of a species, and since a few species may be known by more than one latin name, readers can use the Index to look up species discussed in this volume. The Index gives both latin and common names, as well as synonyms, allowing a species to be located in several ways.

Since an alphabetic listing does not place related species next to each other in the text, a **Listing of Endangered and Threatened Animal Species by Class and Family** (Appendix III) is provided, grouping all listed species by family. This will be helpful for those readers wishing to know at a glance whether related species are also listed as endangered or threatened in Illinois.

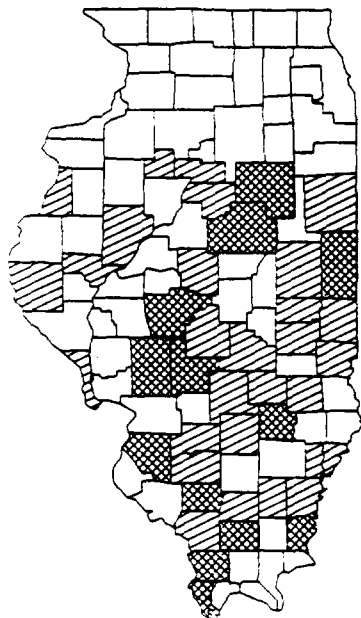
The **Cross Reference of Species to County** (Appendix IV) can be used to find what counties a particular species occurs in. Conversely, a county can be checked for which species occur there. **CAUTION:** Please remember that new data are being collected all the time. The information in the species/county cross references could be out-of-date for some species by the time this volume is printed. This index, as is true of the entire book, should only be used to get a general picture of endangered and threatened animal status in Illinois. It should never be used as a sole source of locational information for any report, project, regional/local planning, or environmental impact assessment. For work of that nature, you must contact the Illinois Department of Conservation, Division of Natural Heritage, 524 South 2nd Street, Springfield, IL 62701-1787.

Genus species Author

COMMON NAME

FAMILY NAME

Status: Endangered or Threatened in Illinois
Federal Status, if any, is also noted.



Present Distribution: A verbal description of the species' general range in North America.

Former Illinois Distribution: A description of the species' former distribution in Illinois.

Habitat: Specific habitat requirements or associations of the species

Reason for Status: Factors believed to have led to the species' endangered or threatened status in Illinois.

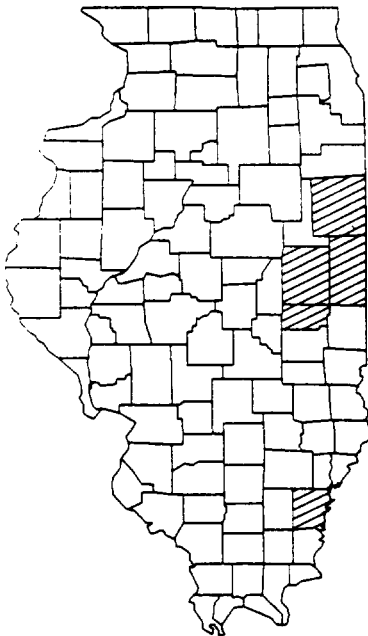
Management Recommendations: Management needs for the recovery and protection of the species.

***Toxolasma lividus* (Rafinesque)**

PURPLE LILLIPUT

UNIONIDAE

Status: Endangered in Illinois



Present Distribution: The purple lilliput is found from the Ohio River drainage south to Arkansas and Georgia (Parmalee 1967). In Illinois it may still occur in the Little Wabash and Vermilion river drainages.

Former Illinois Distribution: In Illinois, this mussel is restricted to tributaries of the Wabash and Ohio rivers, where it has usually been considered to be relatively uncommon or rare (Baker 1906, Parmalee 1967).

Habitat: The purple lilliput is occasionally found in small streams on mud substrates but apparently prefers sand or fine gravel beds in shallow running water (Parmalee 1967, Oesch 1984).

Reason for Status: Populations of this mussel have declined in Illinois presumably due to increased siltation, pollution, and channelization.

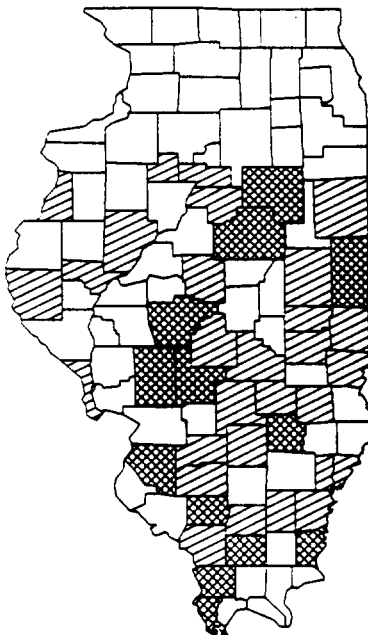
Management Recommendations: Streams in which this species occurs should receive increased protection from agricultural runoff and municipal and industrial pollution. Maintenance of flowing water in riffle areas with suitable water quality, and avoidance of stream modifications such as dredging and impoundments are also need for protection of this species in Illinois.

***Unio merus tetralasmus* (Say)**

PONDHORN

UNIONIDAE

Status: Threatened in Illinois



Present Distribution: The pondhorn occurs in the Mississippi River drainage from Iowa, Illinois, and Indiana, south to Louisiana, east to Tennessee and west to Colorado, Oklahoma and Texas (Parmalee 1967). In Illinois this mussel is sporadic and locally common in small creeks and sloughs in the southern three-fourths of the state.

Former Illinois Distribution: The pondhorn was formerly widely distributed in Illinois, occurring throughout much of the state except for the northeastern quarter (Parmalee 1967). Despite its wide geographic range it was also considered to be uncommon in Illinois and only locally numerous (Parmalee 1967).

Habitat: The pondhorn inhabits ponds, sloughs, lakes, and quiet rivers, where it is usually found in areas with a mud substrate and shallow water (Parmalee 1967).

Reason for Status: The primary threats to this species in Illinois are declining water quality and habitat degradation as a result of agricultural runoff and industrial and municipal pollution.

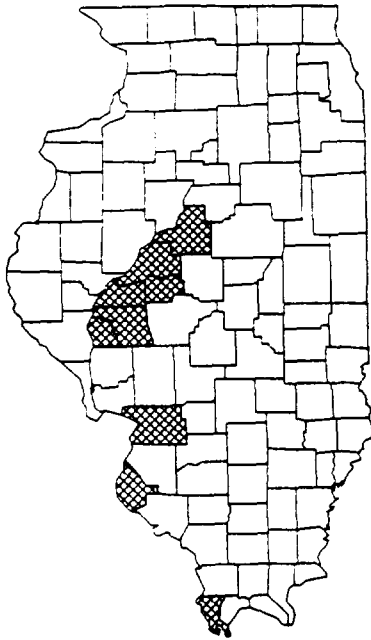
Management Recommendations: This species would benefit from better soil conservation measures designed to reduce agricultural runoff and pollution. Improved protection from industrial and domestic pollution would also benefit this species.

Pseudacris streckeri Wright & Wright

ILLINOIS CHORUS FROG

HYLIDAE

Status: Threatened in Illinois



Present Distribution: The principal range of this frog is from central Texas and adjacent Louisiana through Oklahoma to extreme south-central Kansas. Several disjunct populations comprising the subspecies *Pseudacris streckeri illinoensis* (Illinois chorus frog) occur in Arkansas, Missouri, and Illinois (Smith 1966). The chorus frog occupies 3 widely separated sandy floodplain areas in Illinois: along the Illinois River in the central part of the state; near the Mississippi River in Madison and Monroe counties; and near the junction of the Ohio and Mississippi rivers in extreme southern Illinois. Taubert et al. (1981) reported only 25 known localities in the state, but Brown and Rose (1988) reported finding an additional 36 localities in the lower Illinois River basin. Recent investigations suggest that many historic locations in Cass, Morgan, Menard, and Scott counties no longer support populations of Illinois chorus frogs (Beltz 1991).

Former Illinois Distribution: This species was first collected in Illinois in 1921 from Morgan County. Within Illinois this frog apparently has not occupied a range much more extensive than at present in recent times.

Habitat: This frog requires open sandy areas of river lowlands. Ideal habitat of this type is available on the central Illinois sand prairies, adjacent to the Illinois River. These frogs are fossorial and seldom seen except during the February-April breeding season.

Reason for Status: The Illinois chorus frog is considered threatened because its restriction to sand areas subjects it to habitat degradation. Much of the original sand

prairie is being modified by cultivation, and most of the known populations in the state are small. Brown and Rose (1988) report that nearly two-thirds of the choruses they surveyed contained fewer than 20 males.

Management Recommendations: Areas harboring large concentrations of this species should be acquired and protected from habitat disturbances. Some reforested blowouts could be returned to their natural state by removing their present trees.



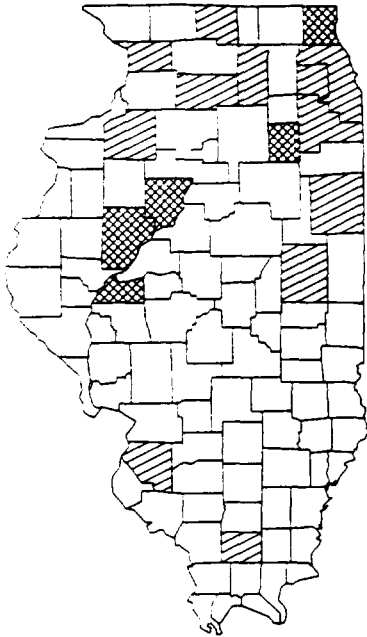
Pseudacris streckeri
(Illinois Chorus Frog)

***Botaurus lentiginosus* (Rackett)**

AMERICAN BITTERN

ARDEIDAE

Status: Endangered in Illinois



Present Distribution: The American bittern breeds from southeastern Alaska and Newfoundland south to southern California, Kansas, Mexico and Florida. It winters north to British Columbia, Ohio, and Delaware. In Illinois it is a rare summer resident and an uncommon migrant and winter resident (Bohlen 1989).

Former Illinois Distribution: The American bittern probably once nested in wet prairie and marsh habitat throughout Illinois. Nelson (1876b), Cory (1909), and Ford (1956) all indicated that this species was a common summer resident in northern Illinois.

Habitat: In Illinois this bittern usually inhabits freshwater marshes and marshy lake shores. Nelson (1876b) reported prairie sloughs as nest sites and Beecher (1942) reported a nest among cattails, bulrushes, and sedges just above water level at a marsh edge. Nesting also has been noted at woodland ponds (Graber et al. 1978).

Reason for Status: The American bittern is a solitary and secretive species usually with widely scattered nests and low population levels. The nesting population in Illinois has declined greatly since the early 1900s, most likely as a result of wetland loss and degradation.

Management Recommendations: Preservation of large tracts of prairie wetlands and interspersed emergent marshes and protection from human disturbance are the greatest management needs for this species in Illinois.

Buteo swainsoni
(Swainson's Hawk)

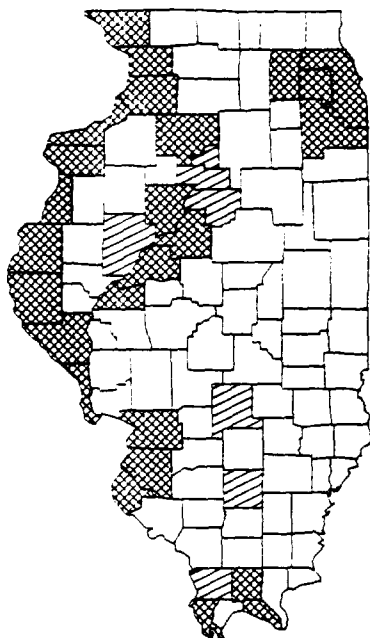


Casmerodius albus (Linnaeus)

GREAT EGRET

ARDEIDAE

Status: Endangered in Illinois



Present Distribution: This large heron breeds from Oregon, Wisconsin, and Massachusetts south to southern South America, and winters north to South Carolina and the Gulf Coast. In Illinois the great egret is a common summer resident and migrant along the Illinois and Mississippi rivers, and an uncommon migrant and postbreeding wanderer in the remainder of the state (Bohlen 1989). The summer population includes postbreeding dispersals from south of Illinois. In 1991 there were 32 active colonies in Illinois; 15 with fewer than 15 nests, 8 with 50-100 nests, and 8 with more than 100 nests.

Former Illinois Distribution: Ridgway (1895) considered this species to be either a summer resident or visitant in almost every portion of the state, although postbreeding migration may have accounted for some of his observations. Prior to the hunting pressure from the plume trade, the great egret may have bred throughout the state in suitable habitat.

Habitat: No colony containing only great egrets is known in Illinois. Great egret rookeries are usually shared with great blue herons and occasionally other herons in floodplain forests. The great egret nests in a wide variety of tree types and sizes, and often nests closer to the ground than great blue herons (Graber et al. 1978). Foraging occurs primarily in floodplain lagoons of major rivers, usually within 10 km of nest colonies (Graber et al. 1978).

Reason for Status: The great egret experienced a major decline in Illinois due to hunting, followed by a major expansion beginning in the late 1930s, and then

another decline resulting in an 80 percent decrease in the population between 1973 and 1976 (Graber et al. 1978). Presently the statewide population is apparently once again increasing but the concentrated nesting of this species makes it vulnerable.

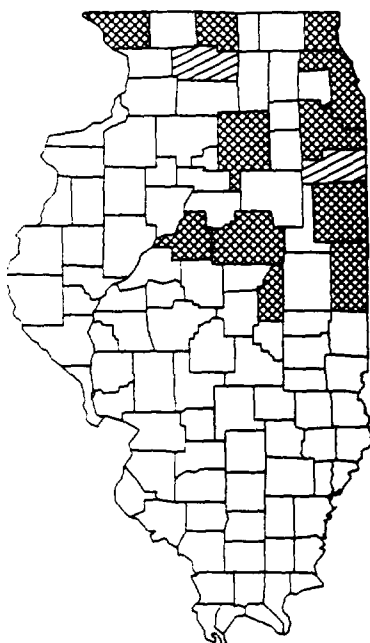
Management Recommendations: Protection of both nesting and foraging areas from disturbance, pollution, and human encroachment are the principal management needs for this species in Illinois.

Catharus fuscescens (Stephens)

VEERY

MUSCICAPIDAE

Status: Threatened in Illinois



Present Distribution: This thrush breeds from southern Canada and the northern U.S. south along the Appalachian Mountains to Georgia and the Rocky Mountains to New Mexico. It winters in South America. The veery occurs as an occasional summer resident in northern Illinois, a rare summer resident in central Illinois, and a fairly common migrant throughout the state. Nesting birds have been limited to the northern two-thirds of the state.

Former Illinois Distribution: The veery has always been a relatively rare summer resident in northern Illinois (Nelson 1876b, Ford 1956). Its range in Illinois was previously thought to be expanding southward (Kleen 1978); however, its range may now be retreating northward.

Habitat: In Illinois the veery usually occurs in moist deciduous woods with relatively dense understory, but it also has nested in savannas, bogs, and successional fields. Robbins et al. (1989) estimated that at least 20 ha of forest habitat is needed to maintain viable populations of this species.

Reason for Status: Little is known about the nesting status of this thrush in Illinois. Although singing males have been observed in several northern Illinois counties, there are few documented nests and the actual breeding population may be low. Destruction of forest habitat may be contributing to the veery's threatened status.

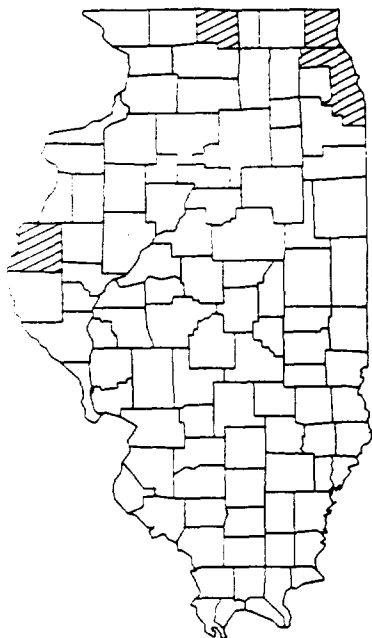
Management Recommendations: Maintenance of relatively large blocks of woodland habitat may be the only practical management tool until more is known about the biology of this species in Illinois.

***Coturnicops noveboracensis* (Gmelin)**

YELLOW RAIL

RALLIDAE

Status: Endangered in Illinois



Present Distribution: This northern rail breeds from central Canada south to the Great Lakes states, also occurring in New Brunswick, Quebec, and Maine. It winters primarily in the southeastern U.S. In Illinois, it is a rare migrant and former summer resident in the northern counties. No recent nest sites are known.

Former Illinois Distribution: Nelson (1876b) considered this rail to be "not very rare" in northeastern Illinois and reported a nest from Winnebago County. Woodruff (1896) regarded it as quite common in Cook County. Although probably once present in suitable habitat throughout northern Illinois, the secretive nature of this species has made documentation difficult.

Habitat: The yellow rail nests in marshes, wet prairie, and sedge meadows with good nesting cover. It apparently prefers monotypic stands of sedges (especially *Carex lasiocarpa*), with standing water and a procumbent, matlike canopy of dead vegetation (Bart et al. 1984).

Reason for Status: Illinois is at the southern limit of the yellow rail's breeding range. Loss of marsh habitat and wetland destruction have probably decimated populations of this rare rail in the state.

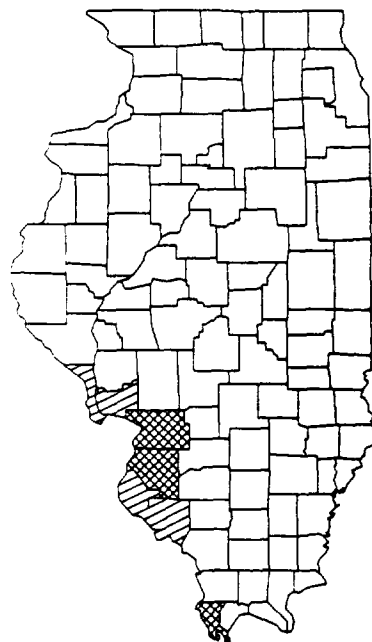
Management Recommendations: Until additional information is gained on the nesting habits of this rail, management suggestions must be general and include the protection and proper management of wetland habitat in northern Illinois.

***Egretta caerulea* (Linnaeus)**

LITTLE BLUE HERON

ARDEIDAE

Status: Endangered in Illinois



Present Distribution: The little blue heron breeds from southern Illinois and New England southward throughout the southern Atlantic states and the Mississippi River valley to southern South America. In Illinois, it is an uncommon migrant and local summer resident in the south and a postbreeding wanderer throughout the rest of the state (Bohlen 1989). There are presently only 3 known nesting colonies in Illinois.

Former Illinois Distribution: Little information is available on the past distribution and abundance of this species in Illinois. Cory (1909) considered the little blue heron to be fairly common in southern Illinois in late summer, probably as a result of postbreeding influx.

Habitat: In Illinois, this species typically nests in association with other herons (black-crowned night-herons, great egrets, and cattle egrets). Nests are often placed in stands of young trees, primarily black willows and cottonwoods forming dense thickets (Graber et al. 1978). Feeding takes place in shallow waters of lagoons, marshes, and swampy areas.

Reason for Status: The low population level, few nesting locations, and continued risk of wetland destruction seriously jeopardizes the prospect for this species' long-term survival in Illinois.

Management Recommendations: Preservation of marsh and lagoon habitat is of highest priority. In these areas, isolated thickets of trees should be maintained for nest habitat.



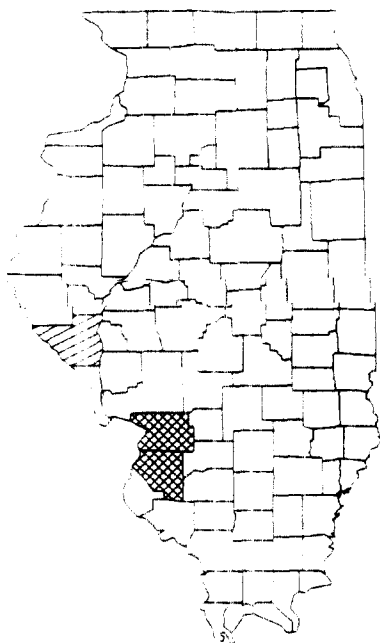
Egretta thula
(Snowy Egret)

***Egretta thula* (Molina)**

SNOWY EGRET

ARDEIDAE

Status: Endangered in Illinois



Present Distribution: The snowy egret breeds from northern California, Oklahoma, and Maine south to southern South America and winters regularly north to California and South Carolina. This egret is a rare migrant and postbreeding wanderer throughout Illinois, and a rare local summer resident in Madison and St. Clair counties.

Former Illinois Distribution: Nesting of the snowy egret in Illinois has probably always been restricted to the American Bottoms of the Mississippi River, although nonbreeding records are available from throughout the state. Snowy egret numbers were greatly reduced by plumie hunters during the 19th and early 20th centuries throughout their entire U.S. range (Cooke 1913) and apparently were eliminated from Illinois during this period (Widmann 1907). They had reappeared by 1934 (Jones 1935) but probably have never had a large breeding population in the state (Graber et al. 1978).

Habitat: In Illinois, snowy egrets nest in lowland thickets or forest in association with other species of colonial herons, especially little blue herons (Graber et al. 1978). Foraging is generally restricted to lagoons and marshes of the American Bottoms.

Reason for Status: At present snowy egrets nest at only 1 location in Illinois. The small breeding population and concentrated nesting of this species severely threaten its chances for long-term survival in Illinois. The cattle egret is similar in ecology to this heron and may compete with it for feeding and nesting space (Graber et al. 1978).

Management Recommendations: Protection of forage and nest sites from disturbance and human encroachment is critical to the survival of the snowy egret as a breeding species.

Gallinula chloropus (Linnaeus)

COMMON MOORHEN

RALLIDAE

Status: Threatened in Illinois



Present Distribution: The common moorhen is distributed throughout North and South America, occurring from southern Canada to southern South America. In Illinois, it is an uncommon migrant, and a locally uncommon summer resident in the northern counties; decreasing in abundance southward (Bohlen 1989).

Former Illinois Distribution: The common moorhen was formerly a very common summer resident in marshes and large prairie sloughs throughout the state (Nelson 1876b, Ridgway 1895).

Habitat: The common moorhen inhabits freshwater marshes, canals, quiet rivers, lakes and ponds with emergent aquatic vegetation, especially cattails and bulrushes. The nest normally consists of a shallow platform elevated slightly above the water and placed among robust emergent vegetation.

Reason for Status: Much less abundant today than before European settlement, the common moorhen still sporadically occupies wetland habitat throughout Illinois. Populations in Illinois may still be declining as drainage, alteration, and destruction of marsh habitat continues.

Management Recommendations: Maintenance of open water marsh habitat is critical for this species. Water level manipulation and prescribed burning are suggested as control mechanisms for keeping open areas in marshes. Artificial wetland sites in some regions of the state may supplement the natural breeding habitat of this species.

Falco peregrinus
(Peregrine Falcon)



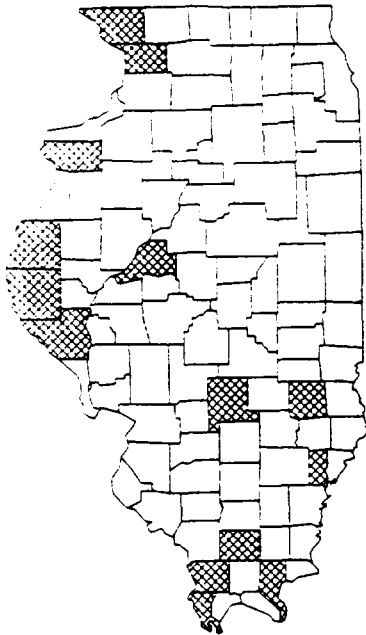


Haliaeetus leucocephalus Linnaeus

BALD EAGLE

ACCIPITRIDAE

Status: Endangered in Illinois
Federally Endangered



Present Distribution: The bald eagle formerly bred throughout most of North America but is now restricted to Alaska, parts of northern and eastern Canada, the northern U.S., the Gulf Coast, and Florida. Winter habitat includes large bodies of water, especially the larger rivers in the interior of the continent. This eagle is a fairly common migrant and winter resident along the Illinois and Mississippi rivers and in southern Illinois on wildlife refuges. It is a rare summer resident with recent nesting known from 14 counties. The number of nests in Illinois has increased in recent years. Between 1989-1991 roughly 9 active nests per year were monitored, compared with approximately 3 nests per year for the period 1984-1988.

Former Illinois Distribution: Ridgway (1889) indicated that the bald eagle occurred along all the major watercourses of the state at all times of the year. Cory (1909) stated that it occurred fairly commonly throughout the unsettled regions of the state and bred throughout its range.

Habitat: In Illinois, eagles inhabit relatively undisturbed areas near large rivers and lakes. Their nests are usually located in the high branches of old trees, and are usually reused from one year to the next.

Reason for Status: The breeding population of bald eagles in Illinois continues to be very low. Despite a recent increase in the number of active nests, nest success remains low in Illinois (approximately 35%) due in large part to human disturbance near nest sites. Illegal shooting continues to be a problem and may be the single largest source of mortality of adult birds.

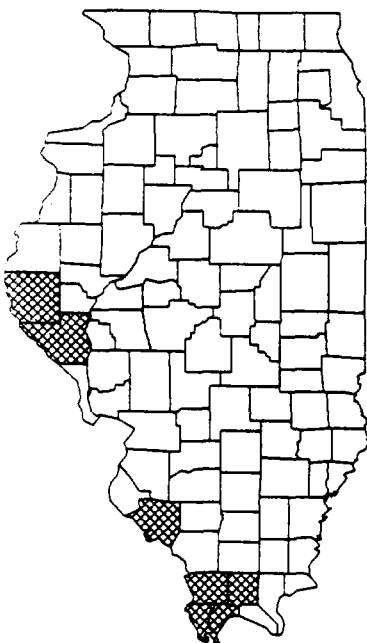
Management Recommendations: Breeding and wintering eagle populations and their respective feeding, roosting, and nesting habitats should receive increased protection from human disturbances.

Ictinia mississippiensis (Wilson)

MISSISSIPPI KITE

ACCIPITRIDAE

Status: Endangered in Illinois



Present Distribution: The Mississippi kite breeds locally from the southeastern and south-central U.S. south into Central America. In Illinois, it occurs as an uncommon migrant and a local summer resident in the southern counties near the Mississippi River and as a rare wanderer farther north into central Illinois (Bohlen 1989).

Former Illinois Distribution: The Mississippi kite formerly occurred in the Mississippi, Illinois, and Wabash river valleys in Illinois (Hardin and Klimstra 1976), where it was considered relatively common in some localities (Ridgway 1889). After 1900 the population in the state declined for unknown reasons.

Habitat: In Illinois, Mississippi kites utilize mature, mixed bottomland forest for nesting and fallow fields, mixed forest, marshes, or other openings for foraging. Nests are placed in tall trees usually near streams, drainage ditches, or narrow roads (Hardin et al. 1977, Evers 1981). Nesting is restricted to large forested tracts usually more than 75 ha in size (Evans 1981). This species may mate for life and frequently reuses old nest sites (Hardin and Klimstra 1976).

Reason for Status: In Illinois this kite declined in abundance with few records noted between 1900 and 1962 (Bohlen 1978). The status of this species has improved in Illinois but the population is still small with as few as 60 nesting pairs occurring annually in the state (Evans 1981, Bohlen 1989).

Management Recommendations: The Mississippi kite requires extensive tracts of mature, mixed bottomland forest interspersed with openings. Protection of

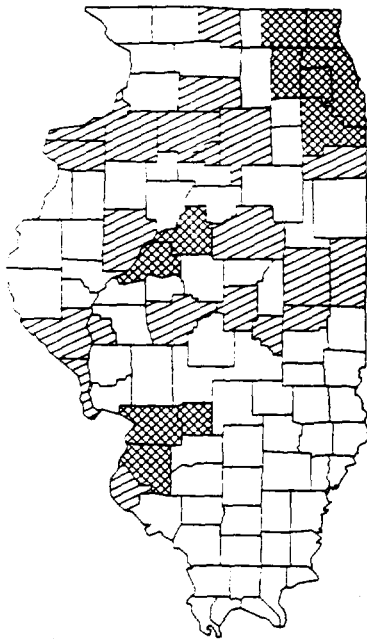
streambank and forest trees and the establishment of uncultivated or fallow fields in the vicinity of known nesting areas would benefit this species (Evans 1981).

***Nycticorax nycticorax* (Linnaeus)**

BLACK-CROWNED NIGHT HERON

ARDEIDAE

Status: Endangered in Illinois



Present Distribution: The black-crowned night heron breeds from Washington, Saskatchewan, Minnesota, and New Brunswick south to southern South America. It winters in the warmer parts of its summer range. It occurs in Illinois as an uncommon migrant and rare summer resident (Bohlen 1989).

Former Illinois Distribution: The black-crowned night heron was formerly a common summer resident occurring in wetland habitats throughout the state (Nelson 1876b, Cory 1909).

Habitat: Black-crowned night-herons often nest among colonies of great blue herons and great egrets. Nests are placed in a wide variety of bottomland forest trees although willow or cottonwood thickets are sometimes used. Nelson (1876b) reported nesting in herbaceous marsh vegetation in Illinois.

Reason for Status: The black-crowned night heron has declined dramatically in Illinois with only 12 known colonies remaining in the state. Although the Illinois population is possibly increasing slightly, destruction of foraging and nesting areas and increasing encroachment and harassment by humans continue to threaten this species.

Management Recommendations: Protection and preservation of both nest and forage sites are critical for this species in Illinois. Human encroachment into nesting areas during the breeding season should be prevented in order to avoid nest abandonment.

***Pandion haliaetus* (Linnaeus)**

OSPREY

PANDIONIDAE

Status: Endangered in Illinois



Present Distribution: The osprey breeds from Alaska and Newfoundland south to Florida and the Gulf Coast. It winters regularly from the Gulf Coast and California south to Argentina. In Illinois, it is an uncommon migrant and rare summer resident (Bohlen 1989). It has recently bred in Adams County, and there are recent summer records of birds from an additional 6 counties (Will, Jackson, Peoria, Williamson, Shelby, Moultrie). It is frequently observed along major rivers and lakes during migration.

Former Illinois Distribution: The osprey was probably once a common summer resident in Illinois nesting throughout the state along the major river valleys and in the glacial lakes of northeastern Illinois (Ridgway 1889, Cory 1909). Prior to the recent (1986) Adams County nest, the last breeding record was at Crab Orchard National Wildlife Refuge (Williamson County) in 1952 (Bohlen 1978).

Habitat: Throughout its range the osprey occupies lakes, rivers, and seacoasts where a supply of fish is available. Nests are placed in deciduous or coniferous trees usually near water and occasionally on artificial sites such as telephone poles. Ospreys usually return to the same nest site in successive years.

Reason for Status: Although receiving less public attention than the bald eagle, the osprey experienced a similar decline between 1950 and the early 1970s, due primarily to pesticides. Although this species is showing signs of recovery in other parts of its range, its recovery in Illinois has been extremely slow.

Management Recommendations: Maintenance of high water quality and protection of large tracts of lake and riverside habitat from human disturbance may help the recovery of the osprey in Illinois. Erecting artificial nest structures also could possibly benefit this species.



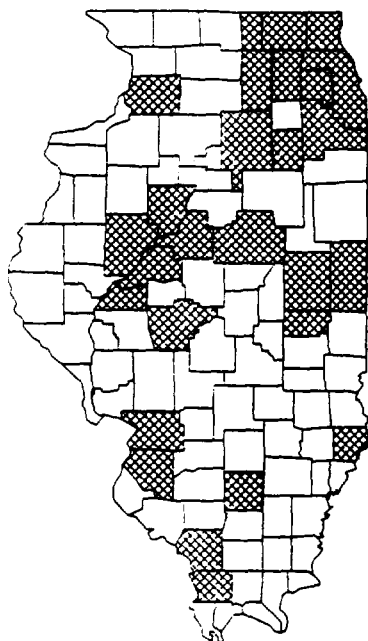
Podilymbus podiceps
(Pied-billed Grebe)

***Podilymbus podiceps* Linnaeus**

PIED-BILLED GREBE

PODICIPEDIDAE

Status: Endangered in Illinois



Present Distribution: This grebe occurs from British Columbia and Nova Scotia south to Argentina. In Illinois it is a common migrant and uncommon summer resident (Bohlen 1989).

Former Illinois Distribution: The pied-billed grebe was formerly a very common summer resident in Illinois, nesting throughout the state along the borders of reedy sloughs, marshes, and rivers (Nelson 1876b, Cory 1909).

Habitat: The pied-billed grebe inhabits fairly large (5 ha), well vegetated lakes, ponds, sluggish streams, and marshes (Brown and Dinsmore 1986, Ehrlich et al. 1988). The nest usually consists of a well-concealed floating mass of marsh vegetation anchored to adjacent plants (Bull and Farrand 1977).

Reason for Status: Deterioration and loss of wetland habitat have greatly reduced the population of this species in Illinois. Human encroachment of wetland habitats continues to be the primary threat to this species' survival in Illinois.

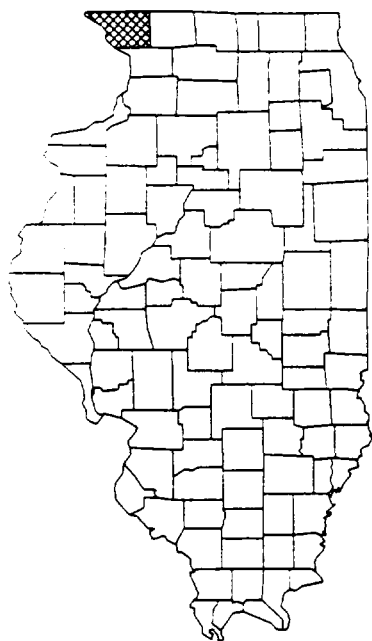
Management Recommendations: Protection and preservation of fairly large wetland areas are needed, especially in the northeastern part of the state where threats to wetland habitats are the greatest.

Lepus townsendii Bachman

WHITE-TAILED JACKRABBIT

LEPORIDAE

Status: Endangered in Illinois



Present Distribution: Northwestern Illinois, southwest to central Kansas and the mountains of north-central New Mexico, and west to east-central California and central Washington. This species' only known recent occurrence within Illinois was at the Savanna Army Depot, Jo Daviess County. The last reliable sighting, however, was in 1983 and this species is now believed extirpated from Illinois.

Former Illinois Distribution: Hoffmeister and Grebner (1948) documented the first record of this species from Illinois, a specimen taken on the sandy areas of the Savanna Army Depot in Jo Daviess County. Reports from that time suggested it was common at the Depot. There are also unconfirmed reports from Carroll, Ogle, Winnebago and Whiteside counties (Yeager 1945, Hoffmeister and Grebner 1948). A specimen was shot east of the Rock River between Oregon and Dixon in 1955 but precise locality data are not available.

Habitat: In Wisconsin, white-tailed jackrabbits prefer remnant prairie ridges and large expanses of cropland and pasture with scattered brushy fencerows on land that was formerly prairie (Dumke 1973). In Illinois, the species seems to prefer the sand prairie areas of extreme northwestern Illinois. Similar habitat occurs in north-central Illinois, but jackrabbits have never been reported from that region.

Reason For Status: The number of jackrabbits in Illinois has declined over the past several decades, and it now may be extirpated. At the Savanna Army Depot where it was reportedly once common, its status is uncertain. The reason for the jackrabbit's decline in Illinois is unknown, but habitat deterioration is suspected.

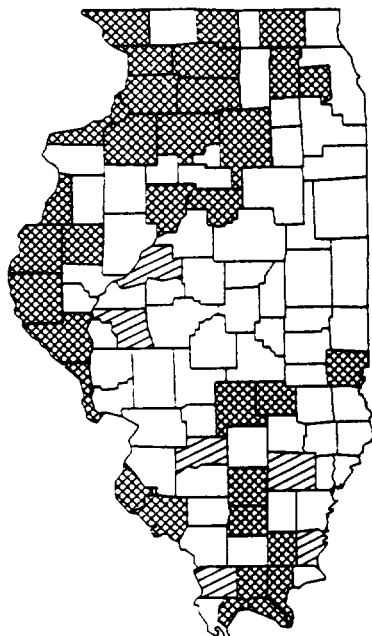
Management Recommendations: The Savanna Army Depot seems to offer the best white-tailed jackrabbit habitat in Illinois. More intensive surveys are needed to determine if this species still occurs in Illinois.

Lutra canadensis (Schreber)

RIVER OTTER

MUSTELIDAE

Status: Endangered in Illinois



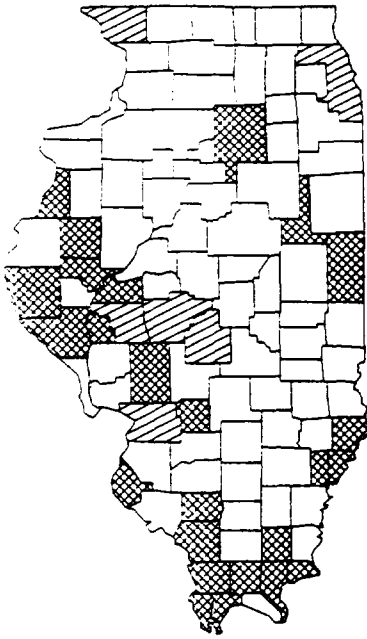
Present Distribution: The range of the river otter includes most of the U.S. and Canada (Burt and Grossenheider 1976). In Illinois, river otters exhibit a sporadic distribution with recent records from 33 counties. The major portion of the population, however, occurs along the backwaters of the Mississippi River in Jo Daviess, Carroll, and Whiteside counties. There also may be a small population in southern Illinois along the Cache River system (Anderson and Woolf 1984). Most occurrences from elsewhere in the state probably represent dispersing or wandering individuals and not permanent populations. River otters may wander 160 km or more in search of favorable habitat (Jackson 1961).

Former Illinois Distribution: The river otter was once common and widely distributed throughout Illinois (Cory 1912, Mohr 1943) but was scarce in most parts of the state by the late 1800s (Hoffmeister 1989). The river otter ceased to be important in the Illinois fur trade by about 1900 and was considered to be nearly, if not completely, extirpated by 1943 (Brown and Yeager 1943).

Habitat: In Illinois, important characteristics of river otter habitat include: waterways isolated from the large river channels, riparian habitat with extensive woodlands, good water quality, and the presence of suitable den sites and open water in winter (Anderson and Woolf 1984). Otters require large amounts of suitable habitat, possibly requiring as much as 80-160 km of linear habitat along shorelines and floodplains (Schwartz and Schwartz 1959, Burt and Grossenheider 1976).

Reason For Status: Otters were rapidly reduced in number immediately after European settlement. This decrease was due to unregulated trapping and to destruction of habitat by agricultural activities, stream pollution, and channelization. Despite a continuous closed season since 1929, river otter populations have remained low, probably due to continued degradation of riparian habitat and declines in water quality.

Management Recommendations: Improvement of stream conditions, protection of large tracts of riparian habitat from intensive development or deforestation, an expanded public education program and continued enforcement of a closed trapping season should help maintain the river otter as part of the Illinois fauna.



Present Distribution: Indiana bats occur from western Oklahoma north to Iowa and Michigan, east to New Hampshire, and south to northern Florida. During fall and winter, 97 percent of the total population hibernates in a few large caves in Indiana, Illinois, Kentucky, and Missouri. In Illinois there are 3 winter colonies. Recent investigations have found evidence of summer breeding populations from 12 Illinois counties (Brack 1979, Sparling et al. 1979, Gardner and Gardner 1980, Kessler and Turner 1980, Kirkpatrick 1980, Gardner and Taft 1984, Clark and Clark 1987, Hoffmeister 1989, Gardner et al. 1990). Most other records are of migrating individuals or adult males.

Former Illinois Distribution: The colony that winters in La Salle County consisted of at least 600 bats in 1953 (Hall 1962), 192 in 1975 (Humphrey 1978), and may have reached a low of approximately 20 individuals in 1983 (Gardner et al. 1990). More recent counts indicate a steady increase in this population between 1983-1989, with the 1989 estimate at 350 individuals. A winter colony in Hardin County consisted of 80 bats in 1953, 20 in 1955, none in 1974 (Whitaker 1975). Prior to 1979, the only spring, summer, or fall records from the state were of individuals from Christian, Cook, Jackson, Morgan, and Union counties.

Habitat: Winter habitat consists of caves and mines where individuals hibernate in characteristic dense clusters. Summer habitat includes a variety of wooded and riparian settings. Summer roosts usually are located beneath the exfoliated bark of dead trees, although roosts within cavities and under the bark of living trees

also have been recorded (Gardner et al. 1990). Roost trees used by pregnant and lactating Indiana bats rarely are less than 500 m from paved highways, and generally are close to upland intermittent streams (Gardner et al. 1990). Indiana bats may travel as far as 2.5 km between roosting and foraging areas, and appear to prefer foraging in floodplain forests near perennial streams (Gardner et al. 1990).

Reason For Status: From 1960 through 1975, this species experienced a 28 percent decrease in number (Humphrey 1978), due primarily to an increased rate of mortality while in cave hibernacula. More recently vandals, commercialism of caves, and natural catastrophes, such as flooding and collapse of caves, have contributed to this decrease. Highly toxic organochlorine insecticides have been shown to accumulate in the tissues of several other insectivorous bats resulting in their death (Clark et al. 1978, 1983). This type of poison also may affect the survival of this species. Riparian habitat used for foraging and the rearing of young is being lost to man-made lakes, stream channelization, housing development and clearcutting for agricultural use.

Management Recommendations: Management of hibernacula should continue, including restricted entry (especially while bats are hibernating) and the elimination of activities destructive to the cave. Riparian forest and active roost trees in areas used by Indiana bats should be conserved as much as possible from conversion to agriculture, channelization, and inundation for lake projects.



Ochrotomys nuttalli
(Golden Mouse)

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